

UPGRADED FLEXIBLE OPEN RING OPTICAL NETWORK AND METHOD

5    ABSTRACT

          In one embodiment, a method is provided for an in-service upgrade of a twin  
ring optical network comprising a plurality of passive add/drop nodes coupled using a  
first optical fiber ring and a second optical fiber ring. The method includes  
interrupting optical traffic travelling in a first direction on the first optical fiber ring at  
10   a first interruption location between a first passive add/drop node and a second  
passive add/drop node. The method further includes interrupting optical traffic  
travelling in a second disparate direction on the second optical fiber ring at a second  
interruption location between the first add/drop node and the second add/drop node.  
The network provides protection switching such that interrupting traffic flow at the  
15   first or second interruption locations does not prevent traffic on the network from  
reaching any add/drop node. The method also includes inserting an optical gateway  
node into the network.